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Data Sheet

August 15, 2026

AMETEK / VTI INSTRUMENTS / VXI TECHNOLOGY

Ametek / VTI Instruments / VXI Technology SMP4002 High-Density Matrix Module

Ametek / VTI Instruments / VXI Technology SMP4002 4×36 Two-Wire Matrix Switch Module

The Ametek / VTI Instruments / VXI Technology SMP4002 isaSMIPII matrix switch configured as one 4×36 two-wire matrix rated 2 A per channel. It belongs to the SMP4xxx matrix family used in SMP1100/1200 bases for structured crosspoint routing in automated test. Instrument-to-UUT matrix routing, multi-instrument sharing, and 2-wire measurement path selection in VXI ATE. Instrument Type: two-wire matrix switch module

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Related Matrices: SMP4001 9x(4×4) SMP4003 2x(4×16)+1x(4×4) SMP4005 12×12



MODEL

**Ametek / VTI
Instruments / VXI
Technology
SMP4002**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

SMP4002

LISTING

<https://aumictechlabs.com/products/smp4002-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Ametek / VTI Instruments / VXI Technology SMP4002 is a high-density matrix module that performs signal routing and switching within automated test systems. This 1 (4×36) 2-wire matrix operates as part of the SMIP II Series, a modular platform designed for VXIbus systems. The module handles switching voltages to 300 V ac/dc and currents to 2 A per channel, with maximum switching power ratings of 60 W dc and 125 VA. Path resistance remains below 500 mΩ, and insulation resistance exceeds $1 \times 10^9 \Omega$, ensuring signal integrity across configurations.

Technical Specifications
Configuration: 1 (4×36) 2-wire matrix
Current Rating: 2 A per channel
Maximum Switching Voltage: 300 V ac, 300 V dc
Maximum Switching Power: 60 W dc, 125 VA
Path Resistance: $1 \times 10^9 \Omega$
Offset Voltage (HI-LO): 45 MHz
Switching Time: <3 ms

Key Features
Multi-layer PCB construction with extensive signal shielding
Automatic scanning and programmable timing delays
Extensive triggering options
Modular building block design for flexible dense configurations
Compact form factor optimized for high-density installations

Typical Applications
The SMP4002 serves automated test and data acquisition systems requiring high-channel-count signal routing with low crosstalk and fast switching performance.

Compatibility & Integration
Designed for VXIbus platforms, the SMP4002 integrates with SMP1100 single-slot and SMP1200 double-slot base units. It operates with SMIP II Series software and drivers, and combines with other SMIP II modules to create custom switching architectures.

SMP4002 Characteristics / Specifications

PARAMETER	VALUE
Model	SMP4002
Instrument Type	two-wire matrix switch module
Matrix Configuration	1 of 4×36 two-wire
Current Class Per Channel	2 A
Wire Mode	2-wire
Family	SMP4xxx matrix switching
Base Units	SMP1100 and SMP1200
Platform	VXIbus SMIP II
Module Role	plug-in switch daughtercard
Related Matrices	SMP4001 9x(4×4) SMP4003 2x(4×16)+1x(4×4) SMP4005 12×12
Crosspoint Class	high density 2 A matrix
Rows	4
Columns	36
Matrix Count On Module	1
Signaling Class	two-wire switched paths
Series Name	SMIP II matrix
Integration	mix and match with power GP mux RF modules
Density Focus	large column count 4-row matrix
Catalog Listing	1 (4×36) 2-wire 2 A per channel
Base Unit Family	SMP1100 and SMP1200
Field Service	front removable modules on bases
Mix Capability	power GP mux matrix RF driver modules
Connector Selection	mating connectors per installed module
Family Alias	SMIP II

SMP4002 Specifications

PARAMETER	VALUE
Applications	Instrument-to-UUT matrix routing, multi-instrument sharing, and 2-wire measurement path selection in VXI ATE.
Key Features	Single 4 by 36 two-wire matrix
Technical Specifications	Model: SMP4002

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

From VTI Instruments SMIPII switching introduction matrix table. Detailed path resistance and bandwidth for SMP4002 specifically belong on the SMP4xxx datasheet for the installed revision.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.